IN THE CLAIMS

Please amend claims 6, 37, 66, 68-76, and 80-84 as follows.

1. (previously presented) A method for improving the performance of a device having a movable microstructure that comprises a deformable element that plastically deforms and operates in a first deformed state and a second state, the method comprising:

repeatedly actuating the element to the first deformed state; or holding the element at the first deformed state for a particular time period so as to cause the element to acquire an amount of plastic deformation that is at least 1.5% of a predetermined maximum plastic deformation that can be developed during the operation of the element; and

delivering the device to a customer.

2. (original) The method of claim 1, wherein the predetermined maximum plastic deformation is an amount of plastic deformation developed after at least 10,000 hours of operation of the element.

3. (previously presented) The method of claim 1, wherein the predetermined maximum plastic deformation is equivalent to a droop angle for the element of 0.8° or more.

4. (previously presented) The method of claim 1, wherein the step of repeatedly actuating the element further comprises:

repeatedly actuating the element to the first deformed state in response to a series of signals each corresponding to an ON state so as to achieve a maximized brightness.

5. (original) The method of claim 1, wherein the customer is a retail customer and the microstructure is a micromirror within a spatial light modulator of a projection system.

6. (currently amended) The method of claim 2, wherein <u>the</u> customer is a projection system manufacture.

7. (cancelled)

8. (cancelled)

9. (original) The method of claim 1, wherein the element comprises an early transition metal nitride.

10. (previously presented) The method of claim 1, wherein the step of repeatedly actuating the element further comprises:

repeatedly actuating the element that is a hinge of a micromirror device, the hinge having a mirror plate attached thereto such that the mirror plate is operable to rotate.

11. (original) The method of claim 1, wherein the step of holding the element at the deformed state for the particular time period further comprises:

holding the element at the deformed state for a particular time period of from 5 minutes to 500 hours.

12. (original) The method of claim 1, wherein the step of holding the element at the deformed state for the particular time period further comprises:

holding the element at the deformed state for a particular time period of from 20 minutes to 24 hours.

13. (previously presented) The method of claim 5, further comprising:

heating the microstructure to a temperature of from 20 °C to 120 °C during the step of repeatedly actuating the element or holding the element at the first deformed state.

14. (previously presented) The method of claim 5, further comprising:

heating the microstructure to a temperature of from 120 °C to 200 °C during the step of repeatedly actuating the element or holding the element at the first deformed state.

15. (previously presented) The method of claim 5, further comprising:

heating the microstructure to a temperature of from 200 °C to 500 °C.

16. (original) The method of claim 1, further comprising:

obtaining a development of plastic deformation in the element over time; and

determining the particular time period according to the obtained development of the plastic deformation.

17. (previously presented) The method of claim 16, wherein the step of determining the particular time period further comprises:

determining an initial amount of the plastic deformation that is developed during a first time period and is at least 1% of the maximum plastic deformation that can be developed by the deformable element; and

determining the particular time period for holding the element at the deformed state according to the first time period such that after holding the element for the particular time period, the acquired deformation encompasses the initial amount of the plastic deformation.

18. (previously presented) The method of claim 8, wherein an initial amount of the plastic deformation is at least 3% or more of the maximum plastic deformation.

19. (previously presented) The method of claim 8, wherein an initial amount of the plastic deformation is at least 5% or more of the maximum plastic deformation.

20. (previously presented) The method of claim 8, wherein an initial amount of the plastic deformation is at least 60% or more of the maximum plastic deformation.

21. (original) The method of claim 1, further comprising:

packaging the microstructure before performing the steps of deforming the element.

22. (original) The method of claim 1, further comprising:

packaging the microstructure after the steps of defining the new non-deformed state.

23. (previously presented) The method of claim 1, wherein the step of deforming the element to the deformed state further comprises:

rotating a mirror plate that is attached to the deformable element to an ON state angle on a substrate, wherein the ON state angle is from 10° to 18° between the mirror plate and the substrate.

24. (original) The method of claim 1, wherein the deformable element comprises a material that is an elemental metal, metalloid, metallic compound or ceramic.

25. (original) The method of claim 1, wherein the deformable element comprises a material that is polycrystalline, amorphous or nanocrystalline.

26. (previously presented) A method for improving the performance of a device having a movable microstructure that comprises a deformable element that plastically deforms and operates in a first deformed state and a second state, the method comprising:

predetermining an amount of desired plastic deformation of the element at a non-actuated state;

repeatedly actuating the element to a first deformed state; or holding the element at the first deformed state for a particular time period so as to cause the element to acquire the desired amount of plastic deformation at the non-actuated state; and

delivering the device to a customer.

27. (previously presented) The method of claim 26, wherein the step of repeatedly actuating the element further comprises:

repeatedly actuating the element to the first deformed state in response to a series of signals each corresponding to an ON state so as to achieve a maximized brightness.

28. (original) The method of claim 26, wherein the customer is a retail customer.

29. (previously presented) The method of claim 26, wherein the step of repeatedly actuating the element further comprises:

repeatedly actuating the element that is a hinge of a micromirror device, the hinge having a mirror plate attached thereto such that the mirror plate is operable to rotate.

30. (original) The method of claim 26, wherein the step of holding the element at the deformed state for the particular time period further comprises:

holding the element at the deformed state for a particular time period of from 5 minutes to 500 hours.

31. (original) The method of claim 26, wherein the step of holding the element at the deformed state for the particular time period further comprises:

holding the element at the deformed state for a particular time period of from 20 minutes to 24 hours.

32. (previously presented) The method of claim 30, further comprising:

heating the microstructure to a temperature of from 20 °C to 120 °C during the step of repeatedly actuating the element or holding the element at the first deformed state.

33. (previously presented) The method of claim 30, further comprising:

heating the microstructure to a temperature of from 120 °C to 200 °C during the step of repeatedly actuating the element or holding the element at the first deformed state.

34. (previously presented) The method of claim 30, further comprising:

heating the microstructure to a temperature of from 200 °C to 500 °C during the step of repeatedly actuating the element or holding the element at the first deformed state.

35. (original) The method of claim 26, further comprising:

obtaining a development of plastic deformation in the element over time; and

determining the particular time period according to the obtained development of the plastic deformation.

36. (original) The method of claim 32, wherein the step of determining the particular time period further comprises:

determining an initial amount of the plastic deformation that is developed during a first time period and is at least 1% of the maximum plastic deformation that can be developed by the deformable element; and

determining the particular time period for holding the element at the deformed state according to the first time period such that after holding the element for the particular time period, the acquired deformation encompasses the initial amount of the plastic deformation.

37. (currently amended) The method of claim 32, wherein the step of determining the pattern further comprises:

determining an initial amount of the plastic deformation that is developed during a first time period and is at least 1.5% or more of the maximum plastic deformation[[;]].

38. (previously presented) The method of claim 33, wherein an initial amount of the plastic

deformation is at least 3% or more of the maximum plastic deformation.

39. (previously presented) The method of claim 33, wherein an initial amount of the plastic deformation is at least 5% or more of the maximum plastic deformation.

40. (previously presented) The method of claim 33, wherein an initial amount of the plastic deformation is at least 60% or more of the maximum plastic deformation.

41. (original) The method of claim 26, further comprising:
packaging the microstructure before performing the steps of deforming the element.

42. (original) The method of claim 26, further comprising:
packaging the microstructure after the steps of defining the new non-deformed state.

43. (previously presented) The method of claim 26, wherein the step of deforming the element to the deformed state further comprises:

rotating a mirror plate that is attached to the deformable element to an ON state angle on a substrate, wherein the ON state angle is from 10° to 18° between the mirror plate and the substrate.

44. (original) The method of claim 26, wherein the deformable element comprises a material that is an elemental metal, metalloid, metallic compound, or ceramic.

45. (original) The method of claim 26, wherein the deformable element comprises a material that is polycrystalline, amorphous or nanocrystalline.

46. (previously presented) A method for improving the performance of a device having a movable microstructure that comprises a deformable element that plastically deforms and operates in a first deformed state and a second state, the method comprising:

acquiring an amount of plastic deformation, comprising:

repeatedly actuating the element to the first deformed state; or holding the element at the first deformed state for a time period of 1 hour or more so as to cause the element to acquire an amount of plastic deformation; and

shipping the device to a customer.

47. (original) The method of claim 46, wherein the step of acquiring the amount of plastic deformation further comprises:

holding the element at the first deformed state for a time period of 10 hours or more.

48. (original) The method of claim 46, wherein the step of acquiring the amount of plastic deformation further comprises:

holding the element at the first deformed state for a time period of 50 hours or more.

49. (previously presented) The method of claim 46, wherein the step of acquiring the amount of plastic deformation further comprises:

holding the element at the first deformed state for a time period of 100 hours or more.

50. (previously presented) The method of claim 46, wherein the step of repeatedly actuating the element further comprises:

repeatedly actuating the element to the first deformed state in response to a series of signals each corresponding to an ON state so as to achieve a maximized brightness.

51. (previously presented) The method of claim 46, further comprising:

obtaining a development of plastic deformation in the element over time; and

determining the particular time period according to the obtained development of the plastic deformation.

52. (previously presented) The method of claim 48, wherein the step of determining the particular time period further comprises:

determining an initial amount of the plastic deformation that is developed during a first time period and is at least 1% of the maximum plastic deformation that can be developed by the deformable element; and

determining the particular time period for holding the element at the deformed state according to the first time period such that after holding the element for the particular time period, the acquired deformation encompasses the initial amount of the plastic deformation.

53. (previously presented) The method of claim 49, wherein an initial amount of the plastic

deformation is at least 3% or more of the maximum plastic deformation.

54. (previously presented) The method of claim 49, wherein an initial amount of the plastic deformation is at least 5% or more of the maximum plastic deformation.

55. (previously presented) The method of claim 49, wherein an initial amount of the plastic deformation is at least 60% or more of the maximum plastic deformation.

56. (previously presented) The method of claim 47, wherein the step of deforming the element to the deformed state further comprises:

rotating a mirror plate that is attached to the deformable element to an ON state angle on a substrate, wherein the ON state angle is from 10° to 18° between the mirror plate and the substrate.

57. (previously presented) The method of claim 47, wherein the particular time period is from 5 minutes to 800 hours.

58. (previously presented) The method of claim 44, wherein the particular time period is from 1 to 24 hours.

59. (previously presented) The method of claim 45, further comprising: raising the temperature of the microstructure to a value of from 20° to 120 °C during the step of repeatedly actuating the element or holding the element at the first deformed state.

60. (previously presented) The method of claim 45, further comprising: raising the temperature of the microstructure to a value of from 120° to 200 °C during the step of repeatedly actuating the element or holding the element at the first deformed state.

61. (previously presented) The method of claim 45, further comprising: raising the temperature of the microstructure to a value of from 200° to 500 °C during the step of repeatedly actuating the element or holding the element at the first deformed state.

62. (previously presented) The method of claim 46, wherein the deformable element comprises a material that is an elemental metal, metalloid, metallic compound or ceramic.

63. (previously presented) The method of claim 46, wherein the deformable element comprises a material that is polycrystalline, amorphous or nanocrystalline.

64. (previously presented) The method of claim 46, further comprising:
packaging the microstructure before performing the steps of acquiring the amount of plastic deformation.

65. (previously presented) The method of claim 46, further comprising:
packaging the microstructure after the steps of acquiring the amount of plastic deformation.

66. (currently amended) A method of improving the lifetime of a spatial light modulator having an array of micromirrors, wherein each micromirror comprises ~~of which~~ ~~has~~ a reflective mirror plate attached to a deformable hinge such that the mirror plate can rotate between an ON and OFF state, the method comprising:
acquiring an amount of plastic deformation for the deformable hinge of one of the micromirrors of the array ~~element~~;
defining a new OFF state according to the original OFF state and the acquired plastic deformation; and
operating [[the]] said one of the micromirrors of the array ~~microstructure~~ at the new OFF state and the ON state.

67. (previously presented) The method of claim 66, wherein the step of acquiring the amount of plastic deformation further comprises:
setting the mirror plates to a deformed state; and
holding the mirror plates at the deformed state for a particular time period.

68. (currently amended) The method of claim 66, further comprising:
calibrating the micromirror ~~microstructure~~ based on the new OFF state such that the ~~microstructure~~ micromirror can be operated in the ON state and the new OFF state.

69. (currently amended) The method of claim 67, wherein the step of holding the mirror plate ~~element~~ at the deformed state for the particular time period further comprises:

holding the mirror plate ~~element~~ at the deformed state for a particular time period of from 5 minutes to 500 hours.

70. (currently amended) The method of claim 67, wherein the step of holding the mirror plate ~~element~~ at the deformed state for the particular time period further comprises:

holding the mirror plate ~~element~~ at the deformed state for a particular time period of from 20 minutes to 24 hours.

71. (currently amended) The method of claim 67, further comprising:

heating the micromirror ~~microstructure~~ to a temperature of from 20 °C to 120 °C during the step of repeatedly actuating ~~the element~~ or holding the mirror plate ~~element~~ at the ~~first~~ deformed state.

72. (currently amended) The method of claim 67, further comprising:

heating the micromirror ~~microstructure~~ to a temperature of from 120 °C to 200 °C during the step of repeatedly actuating ~~the element or~~ holding the mirror plate ~~element~~ at the deformed state.

73. (currently amended) The method of claim 67, further comprising:

heating the micromirror ~~microstructure~~ to a temperature of from 200 °C to 500 °C during the step of repeatedly actuating ~~the element or~~ holding the mirror plate ~~element~~ at the deformed state.

74. (currently amended) The method of claim 66, further comprising:

obtaining a development of plastic deformation in the deformable hinge ~~element~~ over time; and

determining the particular time period according to the obtained development of the plastic deformation.

75. (currently amended) The method of claim 74, wherein the step of determining the particular time period further comprises:

determining an initial amount of the plastic deformation that is developed during a first time period and is at least 1% of the developed maximum plastic deformation; and

determining the particular time period for holding the mirror plate ~~element~~ at the deformed state according to the first time period such that after holding the mirror plate ~~element~~ for the particular time period, the acquired deformation encompasses the initial amount of the plastic deformation.

76. (currently amended) The method of claim 75, wherein the initial amount of the plastic deformation is at least 1.5% or more of the maximum plastic deformation[[;]].

77. (previously presented) The method of claim 76, wherein the initial amount of the plastic deformation is at least 3% or more of the maximum plastic deformation.

78. (previously presented) The method of claim 77, wherein the initial amount of the plastic deformation is at least 5% or more of the maximum plastic deformation.

79. (previously presented) The method of claim 78, wherein the initial amount of the plastic deformation is at least 60% or more of the maximum plastic deformation.

80. (currently amended) The method of claim 66, further comprising:

packaging the micromirror ~~microstructure~~ before performing the steps of acquiring the amount of plastic deformation.

81. (currently amended) The method of claim 66, further comprising:

packaging the micromirror ~~microstructure~~ after the steps of acquiring the amount of plastic deformation.

82. (currently amended) The method of claim 67, wherein the step of setting the mirror plate to the deformed state further comprises:

rotating a mirror plate that is attached to the deformable hinge ~~element~~ to an ON state angle on a substrate, wherein the ON state angle is from 10° to 18° between the mirror plate and the substrate.

83. (currently amended) The method of claim 66, wherein the deformable hinge ~~element~~ comprises a material that is an elemental metal, metalloid, metallic compound or ceramic.

84. (currently amended) The method of claim 66, wherein the deformable hinge ~~element~~ comprises a material that is polycrystalline, amorphous or nanocrystalline.